

TYPO₃ KNOWLEDGE BASE

SABIDURIA





Agenda

01 The Team

02 The Vision

03 Our Goals

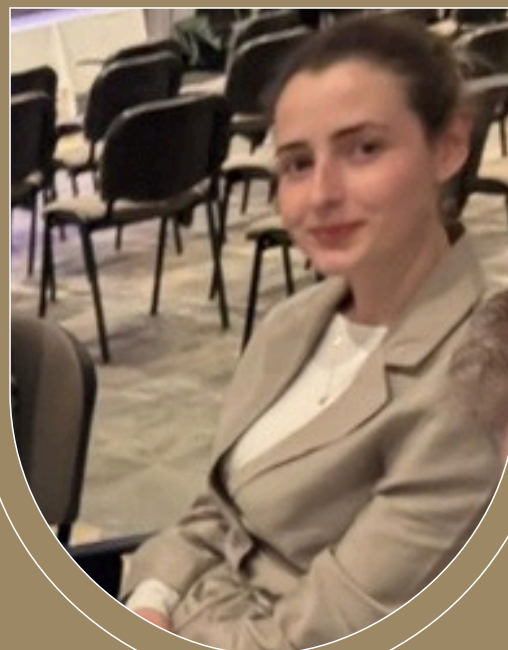
04 Achievements

05 Lessons Learned

06 Next Steps

Bonus: secret to our success

The Team





The Vision

building a smart workspace inside the TYPO3
backend to store all the wisdom

sabiduría (span. wisdom)



Our Goals



Create an Backend Extension

use the current user permission handling

Custom Page Tree

boards, lists, and cards to organize

Editing View / Normal View

comments, reactions

Search Bar to search for content

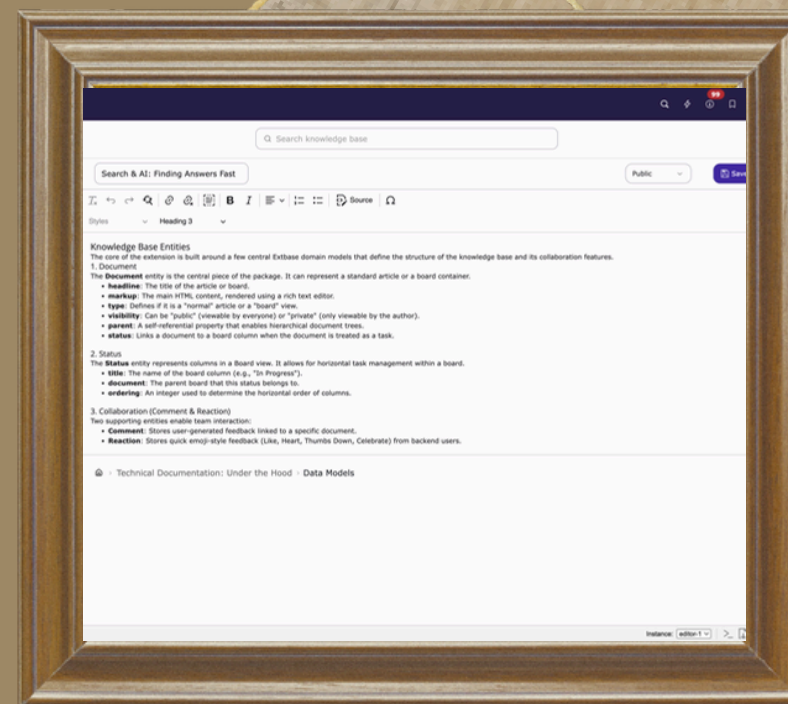
categories, tagging

sharing ability -> for public use

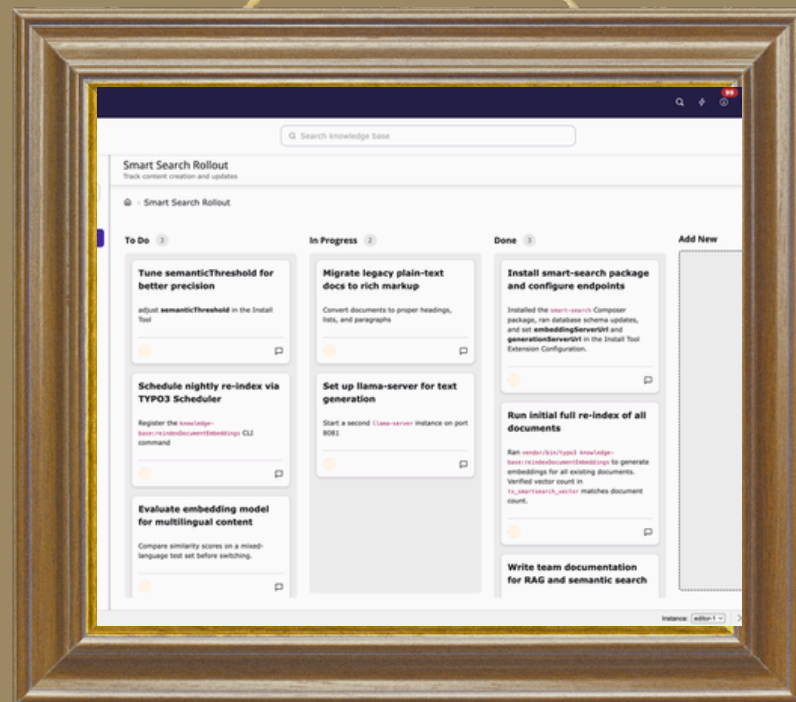
Achievements



PageTree



Pages



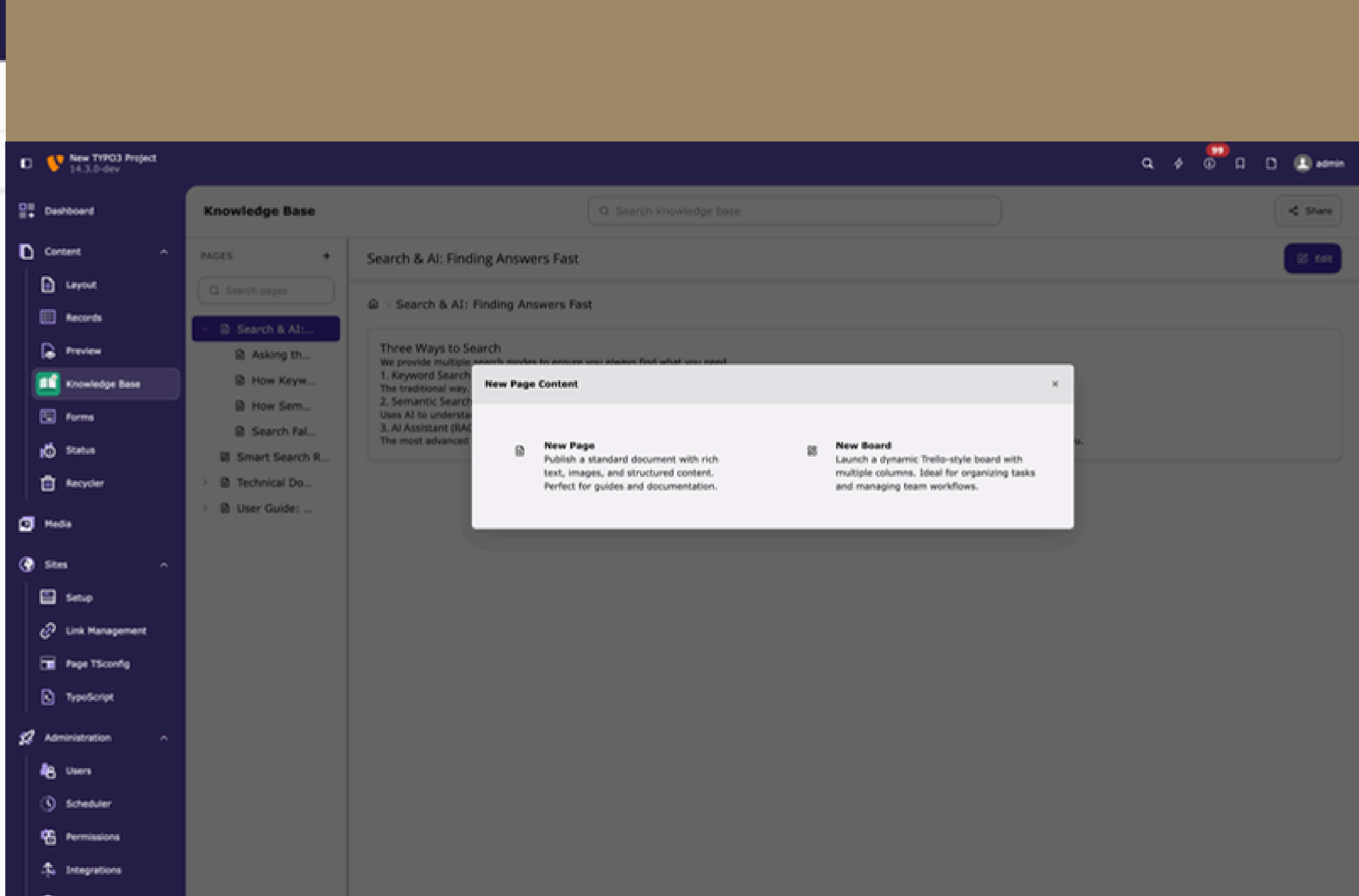
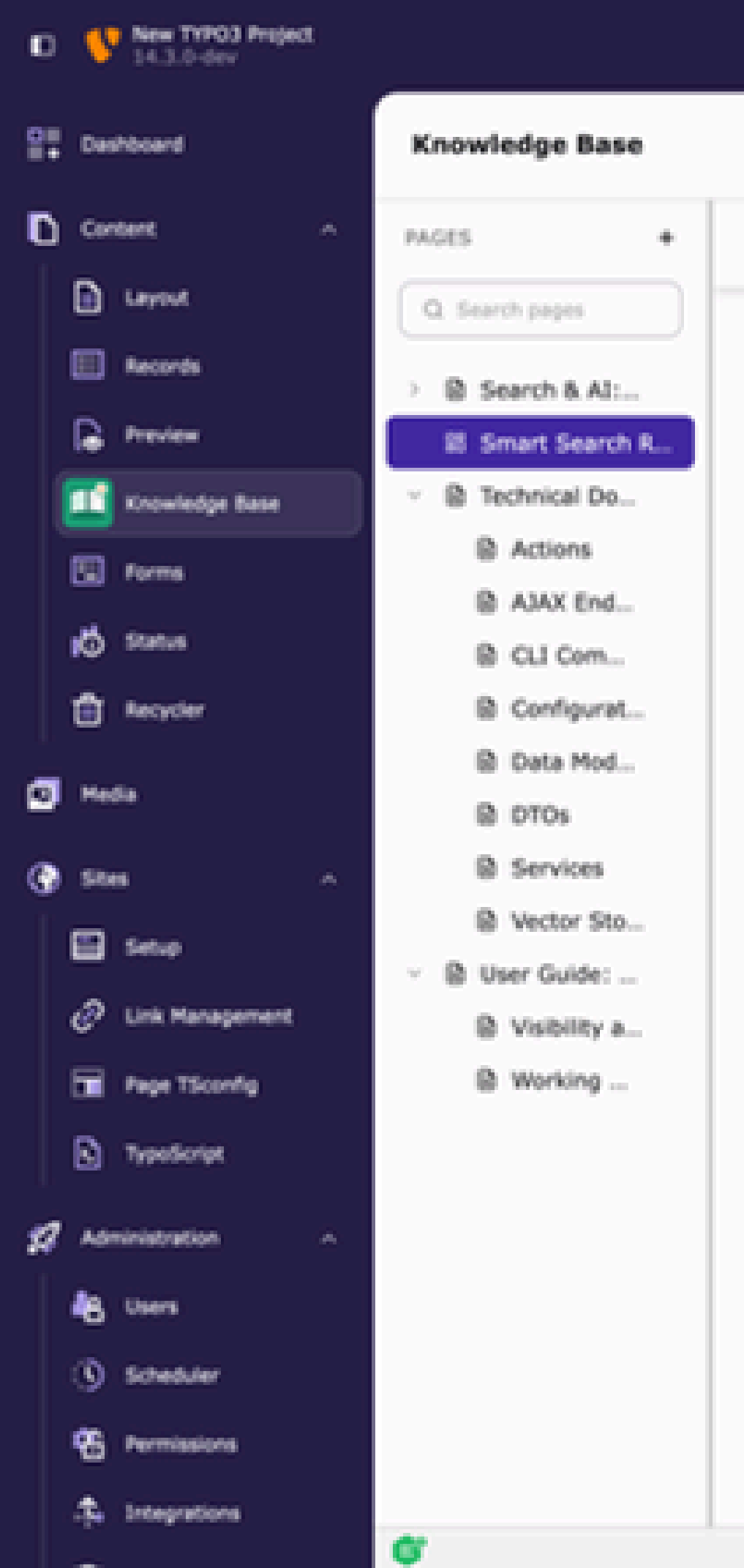
Boards



Search

Achievements

PageTree





Achievements

Pages

- Dashboard
- Content
 - Layout
 - Records
 - Preview
 - Knowledge Base**
 - Forms
 - Status
 - Recycler
- Media
- Sites
 - Setup
 - Link Management
 - Page TSconfig
 - TypoScript
- Administration
 - Users
 - Scheduler
 - Permissions
 - Integrations

Knowledge Base

Share

PAGES +

- Search & AI...
- Smart Search R...
- Technical Do...
- User Guide: ...**
- Visibility a...
- Working ...

User Guide: Mastering the Knowledge Base

Edit

User Guide: Mastering the Knowledge Base

Welcome to your Knowledge Hub!
This extension is designed to be the central brain for our team. Here is how you can get the most out of it.

Navigating the Tree
On the left, you see the document tree. You can expand and collapse folders to explore different categories. Clicking a document will load its content instantly.

Creating Content

- Normal Documents:** Use these for text-heavy information, guides, and documentation.
- Board Documents:** Use these for task management and workflows. They allow you to define statuses and drag tasks between them.

Collaboration
Every document supports team interaction. You can leave **Comments** to discuss content or use **Reactions** to show your support or acknowledgment.

Knowledge Base

PAGES +

- Search & AI:...
- Smart Search R...
- Technical Do...
 - Actions
 - AJAX End...
 - CLI Com...
 - Configurat...
 - Data Mod...**
 - DTOs
 - Services
 - Vector Sto...
- User Guide: ...
 - Visibility a...
 - Working ...

Rich text editor toolbar with icons for undo, redo, search, link, unlink, list, bold, italic, text color, background color, source, and help.

Styles ▼ Heading 3 ▼

Knowledge Base Entities

The core of the extension is built around a few central Extbase domain models that define the structure of the knowledge base and its collaboration features.

1. Document

The **Document** entity is the central piece of the package. It can represent a standard article or a board container.

- **headline**: The title of the article or board.
- **markup**: The main HTML content, rendered using a rich text editor.
- **type**: Defines if it is a "normal" article or a "board" view.
- **visibility**: Can be "public" (viewable by everyone) or "private" (only viewable by the author).
- **parent**: A self-referential property that enables hierarchical document trees.
- **status**: Links a document to a board column when the document is treated as a task.

2. Status

The **Status** entity represents columns in a Board view. It allows for horizontal task management within a board.

- **title**: The name of the board column (e.g., "In Progress").
- **document**: The parent board that this status belongs to.
- **ordering**: An integer used to determine the horizontal order of columns.

3. Collaboration (Comment & Reaction)

Two supporting entities enable team interaction:

- **Comment**: Stores user-generated feedback linked to a specific document.
- **Reaction**: Stores quick emoji-style feedback (Like, Heart, Thumbs Down, Celebrate) from backend users.

🏠 - Technical Documentation: Under the Hood - Data Models

Achievements

Search

Knowledge Base

PAGES +

- Configuration...
- Set up llama...
- Services
- Search Falba...
- Vector Stora...

Smart Search Rollout

Track content creation and updates

Smart Search Rollout

To Do 3

- Tune semanticThreshold for better precision**
adjust `semanticThreshold` in the Install Tool
- Schedule nightly re-index via TYPO3 Scheduler**
Register the `knowledge-base:reIndexDocumentEmbeddings` CLI command
- Evaluate embedding model for multilingual content**
Compare similarity scores on a mixed-language test set before switching.

- Keyword**
- Semantic
- RAG

- Configuration & AI Server Settings**
Technical Documentation: Under the Hood
- Set up llama-server for text generation**
Smart Search Rollout
- Services**
Technical Documentation: Under the Hood
- Search Fallback & Graceful Degradation**
Search & AI: Finding Answers Fast
- Vector Storage & Embedding Pipeline**
Technical Documentation: Under the Hood

- Set up llama-server for text generation**
Start a second `llama-server` instance on port 8081

- search package endpoints**
search Composer
ie schema updates,
`serverUrl` and
`generationServerUrl` in the Install Tool
Extension Configuration.
- Run initial full re-index of all documents**
Run `vendor/bin/typo3 knowledge-base:reIndexDocumentEmbeddings` to generate embeddings for all existing documents.
Verified vector count in `tx_smartsearch_vector` matches document count.
- Write team documentation for RAG and semantic search**

Share

New Task

Add New

+

Instance: editor-1

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Knowledge Base

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- Keyword**
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- RAG**

Edit

Search & AI: Finding Answers Fast

Search & AI: Finding Answers Fast

Three Ways to Search

We provide multiple search modes to ensure you always find what you need.

- 1. Keyword Search (Fulltext)**
The traditional way. Type keywords, and we match them against headlines and document content using MySQL Fulltext indexing.
- 2. Semantic Search (Smart Search)**
Uses AI to understand the meaning behind your query. Even if you don't use the exact words, it finds relevant concepts.
- 3. AI Assistant (RAG)**
The most advanced mode. Type a question like "How do I create a board?", and the AI will read relevant documents and generate a direct answer for you.



Achievements
Boards

Knowledge Base

Search knowledge base

Share

PAGES +

Search pages

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User Guide: ...

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Smart Search Rollout

Track content creation and updates

New Task

Smart Search Rollout

To Do 3

In Progress 2

Done 3

Add New

Tune semanticThreshold for better precision

adjust `semanticThreshold` in the Install Tool

Schedule nightly re-index via TYPO3 Scheduler

Register the `knowledge-base:reIndexDocumentEmbeddings` CLI command

Evaluate embedding model for multilingual content

Compare similarity scores on a mixed-language test set before switching.

Migrate legacy plain-text docs to rich markup

Convert documents to proper headings, lists, and paragraphs

Set up llama-server for text generation

Start a second `llama-server` instance on port 8081

Install smart-search package and configure endpoints

Installed the `smart-search` Composer package, ran database schema updates, and set `embeddingServerUrl` and `generationServerUrl` in the Install Tool Extension Configuration.

Run initial full re-index of all documents

Ran `vendor/bin/typo3 knowledge-base:reIndexDocumentEmbeddings` to generate embeddings for all existing documents. Verified vector count in `tx_smartsearch_vector` matches document count.

Write team documentation for RAG and semantic search

+ Add New

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Smart Search Rollout

Track content creation and updates

Smart Search Rollout

To Do (3)

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In Progress (2)

- Migrate legacy plain-text**
- Install smart-search package and configure endpoints**
called the `smart-search` Composer package, ran database schema updates, set `embeddingServerUrl` and `generationServerUrl` in the Install Tool Provision Configuration.
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- Write team documentation for RAG and semantic search**

Add New

+

Create New Task

Task name

Task Description

Cancel Create Task

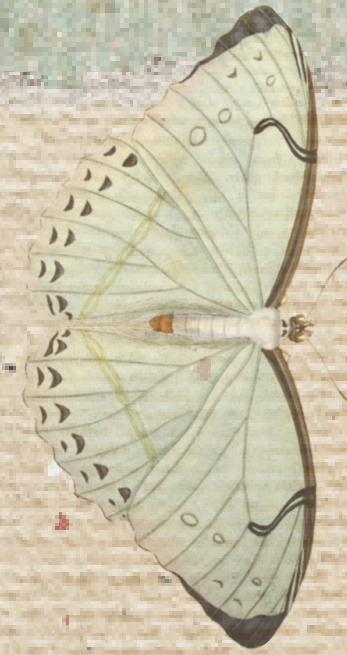
Lessons Learned



- time management
- working with 6 different developers
- motivational methods (more later)

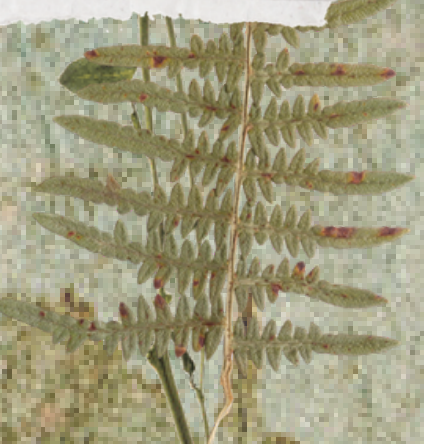


as a Team



NEXT STEPS

- Comments and reactions
- Comment moderation
 - categories, tagging
- Sharing ability
 - optimize UX (warnings, infos)



Bonus

Motivation Smile.

POR SU ATENCIÓN

Gracias

When asked
you meet a sign
head, half right
to (in qu
footpath and
point; do not

